

Mission Possible: New Regional Development Team Focuses on Outreach and Research

Lowell is the one institution in the country that is trying, consciously, to deal with these issues of production and sustainability," said biologist and environmentalist Barry Commoner at the first CITA conference on sustainability in 1997. That mission is often articulated as "economic and social development that benefits the region." For many years now, it has informed the work of a large cross-section of the faculty and staff at UMass Lowell.

Now, Chancellor William T. Hogan wants to capture that campus-wide effort, shape it into a model that will work at other universities, and translate it into practices that will benefit workers and employers in the region. Dr. Edward March and Dr. Selma Botman, as special assistants to the Chancellor, have been asked to spearhead the effort, in close coordination with a 12-faculty task force.

"We're facilitators," says March, a former Lucent Technologies director. "We are animating the mission—showing its relevance and connecting it to the regional economy." He and Prof. Emeritus Michael Best are studying industries in the region, especially smaller companies. They are identifying the types of companies that are likely to drive regional economic growth, so that the university is poised to educate the workforce of tomorrow. "Companies come and go," says March, "but workforce skills and technical capability remain."

This knowledge will influence not only the curriculum, but also the university's research priorities. The campus's recent focus on nanomanufacturing—an enabling technology capable of creating whole new industries—reflects the approach.

March is also the external arm of the regional development office. "We



▲ Prof. Selma Botman, special assistant to the Chancellor for regional economic and social development, and Dr. Edward March, special assistant to the Chancellor for regional industrial partnering, make up the university's Office of Regional Development, located in Cumnock Hall.

are bringing industrial outreach to small and medium-sized companies and startups, where emerging technologies can be used to grow or change their business," says March.

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Comcast, 3M Among CSCE's New Corporate Clients

The Division of Continuing Education and Corporate Studies (CS/CE) recently landed four new corporate contracts, including Comcast and 3M. The contracts combined will bring in over \$100,000 for the Division.

CS/CE has provided training for Hewlett Packard consistently over the last three years. This fall, Prof. Stephen McCarthy, plastics engineering, conducted a seminar in plastic part design for injection molding at the Indigo Division of HP in Israel. The Indigo Division is part of HP's Digital Publishing Solutions Group.

Rain Bird, a worldwide irrigation manufacturer, is also working with the Plastics Engineering Department. Prof. Robert Nunn gave an injection molding seminar to Rain Bird engineers, production supervisors, managers and quality assurance personnel from their Arizona and California facilities.

As part of Comcast University, CS/CE is offering customized associate's and bachelor's degrees in information technology with the information technology and mathematics departments. According to Catherine Kendrick, director of corporate and distance marketing development, Comcast is exploring new proposals for research and development with UMass Lowell, as well as two-way video technologies that will enable more employees to take advantage of the training programs.

Employees of 3M in Methuen will receive customized certificates in electrics technology through the Engineering Technology Department. 3M also expressed interest in expanding the partnership to include internships, joint grant ventures and innovative training programs.

"We are thrilled to continually provide high-quality courses to local and international companies," says Kendrick. "The cooperation of the faculty in the academic departments is what makes these programs successful."

Researchers Conduct a Make Up Examination

If you knew teenage relatives or neighbors were being exposed regularly to substances like formaldehyde, lead or propane, it would probably cause you some concern. Yet, many are.

The exposure may occur, not necessarily from coming too close to a toxic waste site or working in a dangerous environment, but when artificial nails are removed, mascara or acne cream is applied, or cologne

is splashed on. Potentially toxic ingredients in these and other products may be absorbed through the skin or lungs, causing allergic reactions, infections or chronic inflammation.

A team of UMass Lowell researchers has launched a study, "Beyond Your Body: Personal Care product Use

Among Adolescents," to inventory the products and ingredients used by Lowell teens to better understand the scope of the issue.

According to Nursing Prof. Susan Reece, one of the study's principal investigators, the team wasn't going to focus on personal care products originally.

"We almost opted to look at teen smoking, but realized little attention had been paid to this issue," Reece said.

"Beyond Your Body" is being conducted in two phases: first, a series of focus-group interviews of adolescents and young adults is underway to inventory what products are used. Then, an on-line survey of teens from greater Lowell will be piloted to give a more complete picture of the chemicals regularly used by teens.

Sociology Prof. Kristin Esterberg, another principal investigator, says, "The focus-group interviews are

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▲ Members of the "Beyond Your Body" research team, from left, Sokny Long of the Center for Family, Work and Community (CFWC); Asst. Prof. Khanh Dinh, psychology; Khan Chao, CFWC; Assoc. Prof. Kristin Esterberg, sociology; Assoc. Prof. Susan Houde, nursing; Maribel Ortiz, graduate student of nursing; and Prof. Susan Reece, nursing, recently met to discuss the material that's been collected so far. Dinh, Esterberg, Houde, Reece and Prof. Linda Silka of CFWC and Regional Economic and Social Development, not pictured, are co-principle investigators of the study examining the use of personal care products by teens.

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Take Note

Winter Intersession Begins Jan. 5

A wide variety of courses are being offered during Winter Intersession from IT to English, including many introductory and general education courses. Winter Intersession classes will be held Jan. 5 through Dec. 22. Registration continues through Dec. 22. For a full list of courses offered, visit continuing.uml.edu/winter or call ext. 2480.

Excellence in Research Day Celebrates Research Foundation

The fourth annual Excellence in Research Day on Friday, Dec. 12, has a special theme this year: celebrating 50 years of Research Foundation operations.

A noon luncheon will be held in the MIL Conference Center at Wannalancit. The keynote speaker is Belinda Seto, deputy director for the Office of Extramural Research, National Institutes of Health.

One tradition of Excellence in Research Day is to recognize all faculty who have been awarded patents in the previous year. Another is the awarding of the UMass Lowell Researcher of the Year, nominated from among the faculty and selected by a committee of peers.

For more information, contact Lila Lorrey, ext. 4735, or lila_lorrey@uml.edu.

Honors Program Hosts 'Clash of the Clever'

College Bowl is back and student teams flexed their mental muscle at the recent campus tournament. This year's champs were Team "Guthy."

Called "The Varsity Sport of the Mind," College Bowl is an annual academic knowledge competition, modeled after the popular radio and television series of the 50's, 60's and 70's.

On February 21, a University All-Star Team, featuring the four top players from the campus round, will compete in the Regional Tournament at Providence College.



▲ At the recent College Bowl, Team "No Pressure," which placed second overall, debates the answer to a literature question on Nathaniel Hawthorne.

Civil Liberties and the Patriot Act: Trading Freedom for Security?

In the movie *Minority Report*, Tom Cruise heads a futuristic "Pre-Crime" unit, which rounds-up criminals before they can commit crimes. It's a cautionary tale about civil liberties abuse.

But according to civil rights activist Nancy Murray, the movie isn't merely fantasy. It's become fact under the USA Patriot Act.

"This law gives our Government the power to arrest people who haven't broken any laws," she told students and faculty from the Peace and Conflict Studies Institute, during a recent visit.

"You can be punished not for what you've done, but for what you might do."

Passed in the wake of September 11, the USA Patriot Act revised the Bill of Rights in the name of fighting terrorism. But critics of the act charge that it threatens our basic rights and freedoms, giving government increased powers of surveillance.

"It broadens the definition of 'domestic terrorism,' so federal authorities can track e-mails, financial transactions and conduct nationwide roving wiretaps of ordinary Americans," explained Murray.

Murray noted past cases when the nation reacted in times of crisis by curtailing civil liberties, including the internment of more than 20,000



▲ Nancy Murray, director of the American Civil Liberties Union's Bill of Rights Education Project for Massachusetts, was on campus recently to speak on safeguarding civil rights against the USA Patriot Act.

Japanese Americans after the bombing of Pearl Harbor.

"After 9-11, 1,000 Muslim men were detained, but not one indictment has come out of that," she said.

In light of the mounting criticism of the USA Patriot Act, Murray noted changes are already underway.

"About 165 communities nationwide have passed resolutions condemning the USA Patriot Act," she said. "And Congress is finally waking up to the abuses."

'Bobble Jack' Takes Final Nod

For those of you who missed your chance to secure an authentic Jack Kerouac Bobblehead doll over the summer, the English Department will place 200 of the highly sought-after dolls on sale Sunday, December 14, at the Downtown Barnes & Noble in Lowell, from 1 to 3 p.m.

The tax-deductible price of \$35 will benefit the English Department's Kerouac Programs such as the Writer-in-Residence and the Kerouac Scholarship awarded each spring. There will be a limit of two dolls per customer.

The Kerouac bobbleheads made their debut as a giveaway at the Lowell Spinners' Kerouac Night held last August. The evening was co-sponsored by the English Department. The several hundred dolls were scooped up within the first few hours after tickets went on sale. This batch of 200 dolls, which the department ordered after the initial event, are likely to be the last made available to the public.

Prof. Hilary Holladay, English, coordinator of the event, said, "The department will probably co-sponsor another Kerouac Night at LeLacheur Park in 2004, but I'm pretty sure it won't be another bobblehead."

For information, contact Holladay at ext. 4195.



University Avenue Bridge Closed in Early December

The University Avenue Bridge is closed to all traffic due to serious structural deficiencies. The bridge is a main link between UML East and South and UML North, as well as from downtown Lowell and the Acre neighborhood to Pawtucketville.

The structure, which dates from 1895, closed as soon as the O'Donnell Bridge, linking School Street and Mammoth Road, reopened, according to City officials. The O'Donnell Bridge, which spans the Merrimack River at Pawtucket Falls, has had one less lane for months due to repair work. Pedestrians are allowed to cross the bridge.

Additional work is scheduled for the O'Donnell Bridge next spring, however, City officials are expected to request that the state postpone further work on the O'Donnell Bridge until the University Avenue structure is repaired and open to traffic.

Globalization Seen as Threat to America's Workers

Jobs that once moved from one state to another are now moving out of the country, leaving a large number of workers stranded in low level service employment, according to Prof. Robert Forrant of the Regional Economic and Social Development Department (RESDD).

Many of the nation's blue collar workers who once supplied the labor for America's factories are now reduced to flipping burgers, Forrant told a recent seminar sponsored by RESDD, the Center for Industrial Competitiveness and the Department of Work Environment.

Titled, "Between a Rock and a Hard Place: Some Observations on Labor and Globalization," the seminar checked the pulse of America's blue collar workers and organized labor, and concluded that neither is doing well.

"Workers in the U.S. are being squeezed by companies, backed into a corner," said Forrant. "Businesses are forcing unions, workers to renegotiate their contracts, signed in good faith, to take pay cuts, and make concessions on seniority, health insurance and various benefits under the threat that if they don't, the company will move the work."

Workers, according to Forrant, have few choices: "It's a question of whether you want to, in the first instance, jump off the bridge and get it over with; or in the second instance, get several thousand paper cuts and, slowly, over time, bleed to death." Forrant continues:

"In the end, you still don't have a job, so that's the rock and the hard place."

Although labor and management have rarely been friends, history shows that for the most part the two sides understood either could go only so far, the seminar was told. Globalization has changed that; the rules are different, the delicate balance of power has dramatically shifted. Jobs are not just moving—they are moving out of the country.

Forrant is also quick to point out that it's not just the blue collar jobs that are affected. "The brain-work, the work we always thought would stay here, is leaving just as quickly as the other jobs."

Federal reports claim job growth, but Forrant suggests those "new" jobs are not in industry but rather the service sector, at lower pay and often without benefits. Workers need two or three jobs to bring home what they once collected after a long week behind a machine powering an industrial America, he says.



▲ Prof. Robert Forrant

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Researchers Conduct a Make Up Examination

being facilitated by a team of trained undergraduates from throughout the University, working collaboratively with a small group of high school students from Lowell. The team will speak to male and female adolescents, drawn from various ethnic and cultural groups. The Lowell Community Health Center's Teen Coalition is helping with the recruiting.

The project is being sponsored by College of Health and Environment,

the departments of psychology and sociology, the Center for Family, Work and Community, New Ventures Environmental Justice Partnership and the River Ambassador's Program. Additional support has been provided by the Council for Diversity and Pluralism.

—RS

'Is Lowell a College Town?' Students Query University Community

Over the years, UMass Lowell and the City of Lowell have worked together to develop new public facilities that have dramatically altered the perception of the downtown, and the campus itself.

Now, the city's Division of Planning and Development has teamed up with Management Prof. Clare Comm and her Marketing Tactics class this semester to measure the economic impact of the University on the community. The city wants to provide the right type of retail environment that would encourage students to stay in the area now, and settle here after graduation.

"We hear from the retailers that the market isn't here," says Adam Baacke, the city's Chief Planner. "If we hear from the faculty and students that the retailers aren't here, we know there's some connection we're not making."

At their final presentations, the student researchers concluded that Lowell—although named an All-American city—it is not a typical "college town." Despite the cultural and recreational facilities, the retail environment is not the type that appeals to students and young professionals.

Nearly 70 percent of the commuter students surveyed said they did not shop in Lowell, yet nearly 60 percent of those

commuters live in the city.

While 90 percent of the faculty said Lowell had improved, they pointed to the need for more cultural activities, better parking, improved retail options and even a Krispy Kreme store.

The students thought the city



▲ Adam Baacke, left, chief planner for the City of Lowell, was on campus to hear Prof. Clare Comm's Marketing Tactics class report on surveys assessing the economic impact of the University on the community. With Baacke are students Barry Livermore, Kristen Calautti, Nick Piscitello, and Natalie Kaknes, standing from left, and Kristen Kfoury, Cristy James and Sothy Sopheap, seated from left.

should do more to inform them about services offered to budding entrepreneurs. They encouraged the city to work toward the image of being a college town and to view the university population as a potential source for economic stimulus.

One group concluded, "Universities have a greater stake in their location and are less likely to pack their bags every five years like some companies might."

Comm hopes that M.B.A. students will continue and extend this research next year.

Hoff Describes Peace and Conflict in Health Care



◀ Dr. Lee Ann Hoff, left, the founding director of the Life Crisis Institute of Boston and Ottawa, was on campus to describe her work in the study of peace and conflict and its applications in the health care field. She spoke as part of a series being presented by the Peace and Conflict Studies Institute. Prof. John MacDougall hosted.

Upcoming Parker Lectures Feature Programs on Thoreau, Forensic Psychology, Lowell's Stained Glass Windows and More

The Parker Lectures continue in December with two very different programs: a lecture on forensic psychology by the mystery writing team of Hallie Ephron and Donald Davidoff, who write under the name "G.H. Ephron," on Saturday, Dec. 13, at 2 p.m. at Pollard Memorial Library, 401 Merrimack Street; and the travelogue *Mediterranean Discovery: Tunisia Holiday* by filmmaker Ken Lawrence on Sunday, Dec. 14, at 2 p.m. in Lowell High School Auditorium, 50 Fr. Morrisette Blvd.

In January, Dr. Liana Cheney of the Department of Cultural Studies will present a slide-lecture titled, "Lowellian Religious Illumination: the Stained Glass Window" on Sunday, Jan. 25, at 2 p.m. at the Lowell National Historical Park (LNHP) Visitor Center. Dr. Cheney will describe how the stained glass windows in Lowell's churches reveal the innovation of the architectural design and unique religious symbolism.

Other January offerings include a travel film on Italy's island by Stan Walsh on Sunday, Jan. 4, at 2 p.m. at the Lowell High auditorium, a discussion about the joys and chal-

lenges of "blended families" by psychologists David S. Chedekel and Karen G. O'Connell on Saturday, Jan. 17, at 2 p.m. at the Pollard Memorial Library; and Jayne Gordon's lecture "Henry Thoreau: Thirteen Ways to See a River" on Sunday, Jan. 18, at 2 p.m. at the LNHP Visitor Center. Gordon will talk about Thoreau's time on the Sudbury, Concord, and Merrimack Rivers and the ways he connected landscape, local history, lifestyle, and literature.

The Parker Lectures, established in 1917, are presented by the Moses Greeley Parker Lectures Committee in cooperation with UMass Lowell, the City of Lowell, Lowell National Historical Park, Lowell High School and Pollard Memorial Library.

For information on these programs or to obtain copies of the complete Parker Lectures schedule, contact Paul Marion, director of Community Relations at x3107 or Paul_Marion@uml.edu.

NSF Grant Expected to Help Students See 'The Forest'

The problem, says Peter Avitabile, is that students often can't see the forest for the trees.

They take a course, pass it and go on to the next one in the curriculum sequence. But, all too often, they fail to see how the material they learned in the first course is a building block for the next one—or the one after that.

Even within a single course, says Avitabile, an assistant professor in mechanical engineering, students may ask if material on the first test will be included in subsequent tests.

"From the student's perspective, the material seems disjointed," he says.

He illustrates this situation with a cartoon that shows a student asking the professor, "Why didn't you tell us that the material covered at the beginning of the semester was going to be really important for the labs we did?"

The drawing also shows one piece of a jigsaw puzzle that represents the student's view of the material. (A tree) Another panel shows the completed puzzle with all the pieces in place, representing the professor's vision of how everything fits together as a whole. (The forest)

Now, a three-year, \$267,000 National Science Foundation grant to Avitabile and Profs. John White of chemical engineering and Stephen Pennell of mathematics may offer a solution.

The objective of the grant project is to develop a multi-semester, interwoven dynamic systems-related project with an online experiment to integrate material in a relevant, meaningful way for student comprehension and retention.

The project deals with what is known as STEM material (science, technology, engineering and mathematics).

Ultimately, says Avitabile, this interwoven dynamic systems project will contain basic core STEM material that will be easily transferable to all engineering disciplines, and to other institutions as well.

"The objective and approach of this NSF grant is to develop a common project to be used as a theme across several courses that more clearly shows the integration of the material in those courses with the inclusion of a strong laboratory component with an on-line Web-based measurement system.

"With an ongoing problem to analyze, students will better understand the material in related courses and will want to learn how to solve the problem using tools presented in related courses," he says.



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Exhibit Celebrates Art of a Different Type

Lowell Mayor Rita Mercier, right, received a booklet of artwork by art student Nicole Gauthier at the *Alphabet as Art* exhibit reception. Art Prof. Karen Roehr curated the University Gallery exhibit, which featured pieces by 26 artists working in various media, from calligraphy to sculpture to pop-up art. The subjects for all the works were letters of the alphabet.

WEB UPDATE

Google Powers www.uml.edu

Google, one of the world's best search engines, now powers the search feature on uml.edu. Web Director Gerry Nelson implemented the service to improve the search functionality of the site. The search function can be located from internet.uml.edu, the home page or search.uml.edu.

Gold, rust and light blue grace the new Peace and Conflict Studies Institute (PACSI) web site (www.uml.edu/centers/pacsi). The site, designed by Ferney Lopez, provides information on the peace and conflict studies minor, as well as activities sponsored by the Institute.



Admissions Hosts Lowell Guidance Counselors

A dozen guidance counselors from Lowell High School (LHS) spent a half-day at the Office of Undergraduate Admissions recently, learning admissions standards, statewide statistics and data about high schools across the region. The annual event was planned by Associate Director of Admissions Michael Belcher, above, who is shown with, from left, Sandra Brown, college counselor at LHS, and Dr. Lisa Johnson, Assistant Vice Chancellor for Enrollment Management.

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"We are working with economic development agencies in the state, with the planning and development department in Lowell, and with the Science and Technology Caucus in the Legislature."

If March is reaching out, Botman is reaching in—into the campus and into the research on regional development worldwide. "I want to build on the good work faculty have already done here and learn from them," says Botman, a former vice president for academic affairs in the UMass President's office who, in addition to her regional development role, has joined the faculty in the Political Science Department. "This is a campus already connected to K through 12, to the arts, to working with small companies. We're trying to understand it, strengthen it, and figure out the model."

She is also looking at which economic and social development efforts have worked elsewhere.

Botman, a specialist in modern Middle Eastern politics, brings a global perspective to the work. "Selma's work looking at development efforts worldwide is important," says March. "Our regional scope rapidly becomes worldwide because of the global economy."

"My goal is to design a model of best practices that works for the UMass Lowell campus," says Botman, "but also can be transportable to other universities and colleges. I hope the model will encourage faculty to include internships for service learning... so students and faculty are connected to the mission," she says.

Reaching out to companies, reaching in to the university, March says the regional development team hopes to make the university "a leader in driving change for economic prosperity."

—RC

University Chapter Attends Professional Society Conference

UMass Lowell's chapter of the Society of Hispanic Professional Engineers (SHPE) attended an SHPE career and leadership conference recently, accompanied by advisor Hector Valdes, project manager for the Office of Economic Development and a UMass Lowell engineering alum, and Dania Valdes, staff assistant in the Admissions Office.

About 1,500 representatives of more than 65 universities with engineering programs attended the conference, which included workshops, tours of government facilities

and corporate sponsors, a career fair, a technical poster competition and a Web design competition.

The final event was a mixer with latino style music and dance.

Says Hector Valdes. "That was the icing on the cake to a great conference where we not only learned a lot, but also made many new friends and networked with other universities along the eastern coast."



▲ Hector Valdes, right, project manager for the Office of Economic Development and adviser to the UMass Lowell chapter of the Society of Professional Hispanic Engineers, led a delegation of students to a conference in Washington. Standing, from left, are Elvin Zayas, Marcelo Ortiz, Peter Aurora, Rick Benitez, Merquis Garcia and Valdes. In front, from left, are Aldo Quiroz, Victor Rodriguez and Radhames Martinez.

Bioengineering Research Could Lead to Creation of Human Organs

Robert Langer, professor of chemical and biomedical engineering at the Massachusetts Institute of Technology, was the 2003 speaker for the Sukant Tripathy Endowed Memorial Lecture, held in November.

Langer was featured last year in a *Boston Globe* magazine article titled "Is This the Smartest Man in Boston?" His research on drug delivery and tissue engineering has

led to major advances and revolutionized the use of polymers in medicine.

His team's most recent project, for example, involved using polymeric scaffolds, seeded with embryonic stem cells, to create and grow blood vessels, new cartilage, or spinal chord material.

"We are working on making new vocal chords, liver tissue and more," said Langer. "Bioengineering is still at an early stage, but there is less skepticism and more hope than before."

Langer has received more than 100 major awards, has been elected to all three United States National Academies (science, engineering and medicine) and has nearly 500 issued or pending patents worldwide.

The Tripathy Lecture, sponsored by the Center for Advanced Materials, is held annually in memory of Sukant Tripathy, University Professor in chemistry, who died in 2000.



▲ Researchers with the Center for Advanced Materials pose with Dr. Robert Langer, second from right, before his presentation on polymers for drug delivery and tissue engineering, given as the second annual Tripathy Memorial Lecture. From left, they are physics Prof. Jayant Kumar, director; Dr. Ashok Chhili, director of the NMR lab in the Center; and chemistry Prof. Daniel Sandman, associate director.



AFL-CIO's Lee Advocates Universal Solidarity

▲ Thea Lee, chief international economist of the AFL-CIO, recently spoke on the impact of globalization on labor organizing. Lee had just returned from the World Trade Organization's Ministerial meeting in Miami where a free trade agreement for the Western Hemisphere was being debated. The AFL-CIO is opposed to the Free Trade Area of the Americas proposal until a set of labor standards, like the freedom to unionize, are incorporated. Lee was hosted by the Center for Industrial Competitiveness and the Department of Regional Economic and Social Development.

Award-Winning Director Visits Campus



"Mai's America," an award-winning documentary tracing a Vietnamese girl's trek to the U.S., was recently screened on campus, followed by a discussion with the director, Marlo Poras, center. With Poras are Prof. Jeffery Gerson, political science, and the student who introduced the film, Shannon Mansfield, a senior in political science. The event was sponsored by the Center for Diversity and Pluralism.

Research Notes

Barry, Carol
\$50,000
University of Texas Foundation
Evaluation of PPSO as a Chemical Blowing Agent for High Temperature Engineering Plastics

Barry, Carol
\$12,000
National Science Foundation
Interface Effects in High Volume Nanoscale Processing of Polymers

Brown, Gilbert
\$24,600
North Atlantic Energy Service
University of Massachusetts Lowell Nuclear Engineering Internships at Seabrook Station

Cassel, Scott
\$5,000
METRO
Model State Electronics Product Stewardship Legislation

Chiang, Long
\$25,000
University of Dayton Research Institute
Design and Synthesis of New Nanostructured C60-based Photonic Materials

Crumbley, Cathy
\$40,000
Homeland Foundation
Strategic Research and Outreach Initiative on Chemicals Management Policies

Crumbley, Cathy
\$10,000
Massachusetts Breast Cancer Coalition
The Precautionary Principle Project

Daniels, Karen
\$100,000
National Science Foundation
Verification of Properties of Geometric Structures and Reconstruction of Geometric Objects from Partial Information

Davis, Amanda
\$20,168
Specialty Materials, Inc.
Simulation and Prototyping of Process Current Regulator

Donahue, Matthew
\$20,000
EPA New England
The Community EMS Initiative

Forrant, Robert
\$150,000
US Department of Housing and Urban Development
Embedding the University in the Community and Community in the University

Gamache, Robert
\$218,821
National Science Foundation
Line Shape for Water Vapor and Other Atmospheric Asymmetric Rotor Molecules

Jahngen, Edwin
\$13,548
Vista Scientific LLC.
Formulation and Characterization of Modified polymer Beads

Klain, Daniel and Rybnikov, Konstantin
\$100,000
National Science Foundation
Verification of Properties of Geometric Structures and Reconstruction of Geometric Objects from Partial Information

Kumar, Jayant
\$34,826
Konarka Technologies, Inc.
Biological Routes to Synthesis of Macrodyes and Polyelectrolytes

Marx, Kenneth
\$250,000
DARPA/DSO
The Smart Bandage

Mead, Joey
\$12,000
National Science Foundation
Interface Effects in High Volume Nanoscale Processing of Polymers

Megherbi, Dalila
\$20,000
National Science Foundation
MRI: Development of State-of-the-Art Instrumentation for Advanced Distributed Computing Systems for Research and Research Training

Mittler, Arthur
\$41,000
Massachusetts Board of Higher Education
Science Teacher Enhancement Program for Urban Professionals

Montesalvo, Mary
\$94,590
Omnirel Corporation
Irradiation of Electric Devices

Montesalvo, Mary
\$10,000
PPG Industries, Inc.
Radiation Damage Studies of Steel Coupons

Moser, Martin
\$32,893
City of Lowell-Lowell Police Department
Mass Police Leadership Institute

Nordstrom, Judith and Silka, Linda
\$24,348
Federal Prison Camp Allenwood
Project Voice

O'Connell, Peter
\$25,000
Department of the Interior, National Park Service
Cooperative Services Agreement with National Park Services

O'Connell, Peter
\$17,500
Department of the Interior
Support for the Northeast Center for Educational Services

O'Connell, Peter
\$30,000
Lowell Public Schools
Spell Camp: Great Exploration Summer Camp

O'Connell, Peter
\$45,000
Jessie B. Cox Charitable Trust
The Industrial Watershed: Contamination, Clean-up, and Environmental Education in the Merrimack Valley

O'Connell, Peter
\$19,350
Haverhill Public Schools
Individualism, Industrialization, and Impacts on the Environment: Teaching the American Industrial Revolution for Middle School Teachers

O'Connell, Peter
\$10,000
US Department of the Interior
Support for the Northeast Center for Educational Service

Ossen, Vera
\$41,000
Massachusetts Board of Higher Education
Science Teacher Enhancement Program for Urban Professionals

Panasuk, Regina
\$45,000
Massachusetts Board of Higher Education
Improving Middle School Math Students Achievement through PET

Pennell, Stephen
\$266,725
National Science Foundation
Multi-semester Interwoven Problem for Teaching Basic Core

Perna, Beverly
\$45,000
Jessie B. Cox charitable Trust
The Industrial Watershed: Contamination, Clean-up, and Environmental Education in the Merrimack Valley

Punnett, Laura
\$185,200
Canter for Disease Control
Occupational Health & Safety Training Grants

Reinisch, Bodo W.
\$275,459
Southwest Research Institute
Imager for Magnetopause-to-Aurora Global Exploration

Reinisch, Bodo W.
\$50,000
NASA Goddard Space Flight Center
Automated Analysis of Space Plasma Wave Data Using Intelligent System Techniques

Reinisch, Bodo W.
\$42,848
RLM Management Pty Ltd
VIS Critical Logistic Spares-Annex B

Roberts, Kay
\$25,000
The Theodore Edson Parker Foundation
The University of Massachusetts Lowell String Project with the Lowell Public Schools

Salameh, Ziyad
\$20,168
Specialty Materials, Inc.
Simulation and Prototyping of Process Current Regulator

Salzman, Harold
\$115,220
National Science Foundation
The Globalization of Engineering and its Impact on Economic Development: A Study of Knowledge Transfer by Multinationals to Emerging/Newly Industrializing Economies

Sandman, Daniel
\$5,000
Academy of Applied Sciences
Research and Engineering Apprentice Program

Schott, Nick
\$50,000
University of Texas Foundation
Evaluation of PPSO as a Chemical Blowing Agent for High Temperature Engineering Plastics

Sengupta, Sandip
\$30,000
National Science Foundation
Collaborative Proposal: Development and Characterization of Conjugated Polymer Films Suitable for Photovoltaic Devices

Sherwood, James
\$5,000
University of Massachusetts Foundation
PTC Project

Silka, Linda
\$24,348
Federal Prison Camp Allenwood
Project Voice

Silka, Linda
\$66,140
Lowell Community Health Center, Inc.
Cambodian Community Health 2010 Project

Silka, Linda
\$150,000
US Department of Housing and Urban Development
Embedding the University in the Community and Community in the University

Silka, Linda
\$14,999
City of Lowell
Lowell Composting Project

Silka, Linda
\$5,800
Executive Office of Environmental Affairs
UMass Lowell Composting Project

Shea, Thomas B.
\$63,945
National Science Foundation
Does Re-expression of Vimentin Induce Resumption of Axonal Elongation?

Sherwood, James
\$20,601
Major League Baseball
Major League Baseball Comparison

Sung, Changmo
\$12,000
National Science Foundation
Interface Effects in High Volume Nanoscale Processing of Polymers

Sung, Changmo
\$8,600
Osram Sylvania
Analytical TEM of PCA Materials

Sung, Changmo
\$15,000
Ballard Materials Products
Microcharacterization of C/C Composite Papers

Sung, Changmo
\$5,550
Konarka
TEM Analysis of Photovoltaic Samples

Tickner, Joel
\$40,000
Homeland Foundation
Strategic Research and Outreach Initiative on Chemicals Management Policies

Tickner, Joel
\$10,000
Massachusetts Breast Cancer Coalition
The Precautionary Principle Project

Tickner, Joel
\$15,000
The John MercK Fund
Technical and Policy Assistance Work for The Alliance For A Healthy Tomorrow

Toof, Robin
\$66,140
Lowell Community Health
Cambodian Community Health 2010 Project

Tries, Mark
\$38,675
US Department of Energy
Reactor Equipment Upgrade

Turcotte, David
\$14,999
City of Lowell
Lowell Composting Project

Turcotte, David
\$20,000
EPA New England
Community EMS Initiative

Weitzen, Jay A.
\$6,716
Airvana
Test Factory Automation

White, John
\$266,725
National Science Foundation
Multi-Semester Interwoven Problem for Teaching Basic Core STEM Material Critical to Solving Dynamic Systems Problems

Woskie, Susan
\$50,000
Intl. Isocyanate Institute
Development and Evaluation of a Method for Determination of the Total Reactive Isocyanate Group (TRIG) Using the Derivatizing Reagent 1,8 Diaminonaphthalene (DAN)

Five River Hawk Teams Compete in Post-Season Tournaments

Three of UMass Lowell's six fall sports teams—men's soccer, women's cross-country and field hockey – crowned outstanding seasons this year with first-ever visits to NCAA tournaments. They were joined in that post-season achievement by the women's soccer and volleyball teams.

The men's soccer squad posted a 15-5-2 record and went on to win the Northeast 10 tournament with a 3-2 victory over perennial power Southern Connecticut State. The men then won the NCAA regionals with victories over Franklin Pierce and Southern Connecticut before bowing to Dowl-ing, 2-0, in the National Quarterfinals at Oakdale, N.Y.

The women's cross-country team finished second in the NE-10 conference championships and in the NCAA New England regionals. That performance earned the team its first-ever invitation to the NCAA Div. II National Meet where they were ranked 22nd in the country.

The 15-7 field hockey River Hawks defeated long-time powers Bentley and Bryant to win the Northeast 10 championship. They then hosted the national final four at Cushing Field, a testament to how far the program and facilities have come in recent years. After defeating Bryant in the national semi-final, the women lost to Blooms-burg University, 4-1.

Meanwhile, the volleyball team was making its fourth visit in the last six years to the NCAA Division II tournament. However, after posting a 20-8 season record, the club made an early exit from the tourney, losing to Merri-mack, 3-2.

The men's cross-country team, no strangers to post-season play, won the NE-10 championship, their third in four years. They then captured their fourth consecutive NCAA Div. II regional championship, and finished 10th at the national level.

Promotions & Appointments

Appointments

Patrick J. Drane, assistant director, Baseball Research Center in Mechanical Engineering, from 03 to 01.

Bingfeng Fan, postdoctoral researcher in the Research Foundation, from research assistant at UMass Amherst.

Janes Samargedlis, 01 project administrator in the Research Foundation, from 03 administrative assistant.

Jessica Walsh, parent liaison in GearUp, from owner of Creative Decor in North Chelmsford.

Donahues Bestow Gift on Center for the Arts

Christine Brown, director of the UMass Lowell Center for the Arts, has announced that the center has received a gift of \$25,000 from the Nancy and Richard K. Donahue Charitable Foundations Trust, with a promise of two additional \$25,000 grants in the next two years.

The award will be used to support the Discovery Series, a series designed for family audiences, and the STARTS program, which attracts school groups from throughout the region. These two programs entertain more than 55,000 school children each year in the University's Durgin Hall.

Brown says, "As much as 10-20 percent of our audience will be subsidized thanks to this generous gift, and it's giving our budget some breathing space. This will allow us

to keep our already low ticket prices level, despite steadily increasing artist fees."

Typically, the center uses what available funds it has to provide passes to area shelters, like Lowell's Alternative House, or to defray the costs of schools who may not be able to afford to send classes. Students attend who may not otherwise get the chance to see live performing arts.

"When you see a Center for the Arts audience, it's Wham! It's so diverse, so reflective of this place. Many of these kids will attend two programs a year here until they're in eighth grade. That's 18 productions by the time they're thirteen or fourteen," says Brown.

Lowell cultural benefactor Nancy Donahue, who personally informed Brown of the gift, says,

"Arts are so important to the children of the community, and the Center for the Arts has been a key provider of that."

"The Donahues' regular sponsorship has helped maintain the bedrock upon which the Center for the Arts was built," says Brown.

In future years, Brown says the financial assistance may allow the center to bring in acts with richer production values or who travel from greater distances.

"I felt so good about this tremendous vote of confidence," says Brown, "especially in such tough times."

"I just hope they continue doing what they've been doing," Donahue says.

UMass Lowell Offers Legislators Mega-Insights Into Nanomanufacturing

The economic stakes [with nano-based manufacturing] are very high and long-term," Chancellor William T. Hogan told members of the House Science and Technology Committee last month. "Some geographical regions will emerge with greatly enhanced competitive advantage. You could help Massachusetts be one of these regions."

Mitchell Adams, executive director of the Massachusetts Technology Collaborative, opened the briefing — sponsored by Committee Chairman and UMass Lowell alumnus Rep. Brian Dempsey of Haverhill—by pointing out that the University has a

special expertise that should be supported by the legislature. Chancellor Hogan and Engineering Profs. Julie Chen, Stephen McCarthy and Joey Mead impressed upon committee members the need for the state's support for nanomanufacturing—and also explained the technology behind it.

McCarthy held up a basketball in one hand and a BB in the other. "Imagine the basketball is the width of a human hair," he said. "The BB is about 100 nanometers."

Chen, who has a temporary appointment as a nanotechnology program director for the National

Science Foundation, pointed out the importance of state matching funds to receiving grants from the NSF.

Mead described the following scenario of a world gone "nano" about 15 years from now:

"Imagine you are on your way to work, and you want to edit your upcoming presentation. You check your lapel-pinned computer and make a few

clicks. Next, you check your bio-sensor watch. You note that you are currently healthy. Since your family has a history of breast cancer, yours is programmed to indicate any abnormalities for that condition," she said.

UMass Lowell's special expertise—along with partners Northeastern University and the University of New Hampshire—is in the manufacturing application of the broad-based science behind nanotechnology. At this more pervasive stage in a product's development, entire new industries will emerge and, by corollary, new jobs. With expertise in business processes and connections to area industry, the UML-UNH- Northeastern partnership is working hard to obtain a multi-million grant from the NSF. The partnership, one of 80 applicants last year, made the list of five finalists, but was not funded. The group was encouraged by the NSF to reapply.

The grant requires significant matching funds from the institutions involved in the research. For the public universities, that translates into state funds.

The legislature has moved to supply it, with strong support from Dempsey and Sen. Steven Panagiotakos. An economic stimulus bill recently passed the legislature, providing \$20 million in matching funds over three years for research in emerging technologies, including nanotechnology.



▲ UMass Lowell alumnus Rep. Brian Dempsey, second from left, who chairs the House Science and Technology Committee, sponsored a UMass Lowell State House briefing for committee members on nanomanufacturing. Presenting were, from left, Prof. Joey Mead, Chancellor William T. Hogan, NSF program director and UML Prof. Julie Chen, and Prof. Stephen McCarthy.

New Issue of the *Bridge Review* Launched

Where can you find poems by a Lowell-born writer who is a former Poet Laureate of Alaska, an essay comparing the canals of Venice and Lowell, research papers on regional development, selections from the UMass Lowell Kerouac conference, and a portfolio of paintings by an award-winning Lowell artist? All these and more are in the new issue of the area's only Web-based cultural journal, *The Bridge Review: Merrimack Valley Culture*.

To see the publication, go to ecomunity.uml.edu, and select the bridge image. The fourth issue of the on-line journal includes poetry and fiction from writers in the region and beyond, a virtual exhibit of paintings by well-known Lowell artist Vassilios "Bill" Giavis, and an essay by Louisa Thomason of Lowell that compares Lowell to Venice. Contributing writers include alumnus and prize-winning poet Mike Casey of Andover,



former Poet Laureate of Alaska Tom Sexton, and award-winning poet Rhina Espaillat of Newburyport.

Two new features in this issue are "Ideas and Action," which has research papers on regional development by UML faculty and staff (Diana Archibald, Meg Bond, Greg DeLaurier, Chuck Levenstein, Jean Pyle, Linda Silka, and David Turcotte) and "Jack Kerouac and Beat Literature," a selection of scholarly papers delivered at UML's biennial Kerouac Conference. Hilary Holladay of the English Department introduces the Kerouac conference feature.

Hart Rates Entrepreneurial Policy

David Hart, associate professor of public policy at Harvard's Kennedy School of Government, recently spoke on campus about the degree to which governmental policy can or should be used to boost entrepreneurial efforts.



▲ Prof. David Hart, right, of the Kennedy School of Government appears with Ed March, special assistant to the Chancellor for regional industrial partnering at UMass Lowell. Hart was on campus to speak about entrepreneurial policy for the Center for Industrial Competitiveness' Fall Seminar Series.

Hart was the editor and contributor to the recently published *The Emergence of Entrepreneurial Policy: Governance, Start-Ups and Growth in the U.S. Knowledge Economy*, which examines international policy efforts in this area.

In the volume, Hart asserts, "Policymakers may be able to enhance the economy by enhancing entrepreneurship. What matters most is that the policy community not toss out the entrepreneurship baby with the dot-com bathwater."

Hart spoke to an audience of the Fall Seminar Series presented by the Center for Industrial Competitiveness and the Department of Regional Economic and Social Development. He is currently working with Mass Insight investigating entrepreneurship policy in Massachusetts.

Chen Guides Researchers on Working With NSF



◀ Mechanical engineering Prof. Julie Chen, right, on leave from UMass Lowell to serve as a program manager in nanotechnology with the National Science Foundation (NSF), made a presentation recently to the Grant\$ for Lunch series. These information sessions are sponsored by the Research Foundation to keep faculty researchers well apprised of opportunities in funding. Physics Prof. Jayant Kumar, director of the Center for Advanced Materials, discusses a point with Chen at the break.

Tsongas Center Conference Explores Gender, Work and Family



◀ Gender, work and family were the focus of the 15th annual Women's History Conference, hosted by the Tsongas Industrial History Center. Patricia Cleary, a history professor at California State University, Long Beach, front right, presented the keynote address, "View from the Shop: Commerce, Gender, and Women's Work in Early America." With Cleary, before the conference were, front, Sheila Kirschbaum, Tsongas Center school liaison; back, Michelle Turocy, Lowell National Historical Park, and Peter O'Connell, director of the Tsongas Center.



Lowell Welcomes Poet Martin Espada

▲ Poet Martin Espada read from his new collection *Alabanza: New and Selected Poems, 1982-2002* in the Parker Lectures series this fall. Espada drew a full house at Pollard Memorial Library, where he described his journey as a poet. Latino community leaders who produce the weekly radio program "Pensando en Voz Alta" as part of WUML's "Thinking Out Loud" public affairs program teamed up with the University to host a reception for Espada at the Wannalancit mill complex. Welcoming the poet, fourth from left, who teaches at UMass Amherst, were, from left, Maria Lopez and Nadime Cabana of the Merrimack Valley Housing Partnership, Jesus M. Rivera ("Charolo"), Rey Serrano of the Lowell Housing Authority, and Dan Toomey, producer of WUML's "Thinking Out Loud" and a project manager at the Center for Family, Work and Community.

The Shuttle is published by the Publications Office, UMass Lowell, One University Avenue, Lowell, MA 01854. Tel. 934-3223.

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UMass Lowell in the Community

In Place of a Birthday, a Gift to 8,000 Asian Children and the Cause of a 'Sainly Man'

Her 50th birthday was coming up. And the last thing she wanted was "a bunch of black candles," or other turning-50 jokes. "(There's this sense people have that, once you turn 50, it's kind of downhill from there.>"). She was hoping, she says, to "do something that wasn't all about me."

So when she read the story in *Parade* about the mountain climber who was trying to raise money to build schools in a remote region of central Asia—she had lived in Asia once briefly, and studied Japanese—it rang an instant, very powerful bell.

"His name was Greg Mortenson," says Dr. Judy Davidson today. "He'd been a climber in Nepal, and had gotten sick in the area, and the locals had nursed him back to health. I guess he wanted to give something back..."

All this was in a part of the world—Afghanistan, northern Pakistan, the Mongolian steppes, among the remotest regions in the world—where one in three infants dies before its first birthday and the literacy rate, among males, is less than 6 percent; among women it is essentially zero. It is also a region where radical Islam is preached widely and hatred of the west is endemic; many of the Taliban, and some of Osama bin Laden's al Qaeda, were indoctrinated in the madrassas here.

Against this background, Greg Mortenson, working practically alone with not much more than his own faith and some borrowed fax machines, and later with the help of local mullahs, set out 10 years ago to fight ignorance—and the hate that grows like weeds in its wake. The result, by the time Judy Davidson read his story, was nothing short of monumental: four women's vocational centers, 28 primary schools, two school libraries, local scholarships for midwives and eye technicians—more than 8,200 students overall.

So Davidson, an assistant professor in the Graduate School of Education, decided that, instead of

gifts or silly cards, she would ask her friends and celebrants to help Greg Mortenson build another school, one of six he was raising money for at the time: the Olding Community School in Olding, Pakistan, 11 miles from the India-Pakistan border, which will be exclusively for girls.

"I'm a teacher, this is about education. So that seemed very fitting to me. Also, Lowell is a city of immigrants who have benefited from education. To ask people from Lowell to contribute to something like this—it

seemed an ideal way to reach out and share..."

"I was just really happy to have the chance to do it. The way I look at it, Greg Mortenson is a sort of saintly man."

The benefit, which was held September 21 at Lowell's Christ Church United and attended by UMass Lowell faculty and graduate students as well as friends and family of Judy Davidson, raised \$7,038 for the Central Asia Institute—the non-profit organization founded and run by Greg Mortenson—to enable the building and operation of the Olding School for Girls.

"I'm waiting for the day," says Judy Davidson, "when I get a letter in some spindly, child's handwriting from far, far away. 'Dear Dr. Davidson,' it'll say..."

(Anyone wishing to support Greg Mortenson's effort can send a check to Christ's Church United in Lowell, with a memo stating that it is for the benefit of the Central Asia Institute. Or you may contact Dr. Davidson directly at ext. 4611, or by e-mail at Judith_Davidson@uml.edu)

For over 100 years, UMass Lowell has been making a positive difference in the region, through the education, research, and outreach of the institution. The many people who work on the campus also make a positive difference in the University community, as shown in this series, "UMass Lowell in the Community."



▲ Dr. Judy Davidson

Note Worthy

Profs. Eugene Rogers of Health and Clinical Sciences and Thomas Shea of the Biological Sciences Department presented their recent research findings about nutrients and other biochemical factors that modify age-related cognitive decline and the development of Alzheimer's disease to the Explorations in Chemical Education National Conference held at Middlesex Community College on Nov. 14.

The audience of college chemistry and biology teachers heard discussions about the integration of food chemistry, health science and technology in the chemistry curriculum.

The conference was sponsored by the Northeast Section of the American

Chemical Society, the New England Association of Chemistry Teachers, the Two Year College Chemistry Consortium and UMass Lowell.

Prof. Ziyad Salameh, chair of the Electrical and Computer Engineering Department, presented two papers at the 2003 IEEE 58th Vehicular Technology Conference.

The papers, co-authored with Dr. Chakib Alaoui, were "On-board Diagnostic and Rejuvenation System for Electric Vehicles" and "Fast Charging Lead Acid Electric Vehicles Batteries."

Calendar of Events

Continued from Back Page

Wednesday, Feb. 4

Exhibit Reception, "Selections," paintings and works on paper by Timothy Harney, gallery talk at 3p.m., exhibit runs through Feb. 25., University Gallery, McGauvran Student Center. For more information, call (978) 934-3491.

Women's Basketball, vs. Bentley College, 5:30 p.m., Costello Gym. For more information, call (978) 934-HAWK.

Men's Basketball, vs. Bentley College, 7:30 p.m., Costello Gym. For more information, call (978) 934-HAWK.

Saturday, Feb. 7

Women's Basketball, vs. Merrimack College, 2 p.m., Costello Gym. For more information, call (978) 934-HAWK.

Men's Basketball, vs. Merrimack College, 4 p.m., Costello Gym. For more information, call (978) 934-HAWK.

Sunday, Feb. 8

Hockey, vs. Providence, 2 p.m., Tsongas Arena. For more information, call (978) 934-HAWK.

Tuesday, Feb. 10

Performance, STARTS program, "First in Flight: The Wright Brothers," performing arts for grades 4-8, shows at 9:30 and 11:30 a.m. Tickets: \$5. 9:30 a.m. Durgin Concert Hall. For information and reservations, call the STARTS hotline (978) 934-4452

Tuesday, Feb. 24

Performance, STARTS program, "Amelia Bedelia 4 Mayor," performing

arts for grades K-3, shows at 9:30 and 11:30 a.m. Tickets: \$5. 9:30 a.m. Durgin Concert Hall. For information and reservations, call the STARTS hotline (978) 934-4452

Sunday, Mar. 7

Performance, Discovery Series, "Tomas Kubinek: Certified Lunatic & Master of the Impossible," performances at 2 and 4 p.m. best for ages 6 and up. Tickets \$10, group discounts available. 2:00 p.m. Durgin Concert Hall. For information or tickets, call the Center for the Arts (978) 934-4444

Friday, Mar. 12

Performance, STARTS program, "Jim West's DINOSAURS," performing arts for grades K-3, shows at 9:30 and 11:30 a.m. Tickets: \$5. 9:30 a.m. Durgin Concert Hall. For information and reservations, call the STARTS hotline (978) 934-4452

Wednesday, Mar. 17

Performance, STARTS program, "Very Eric Carle," performing arts for grades K-2, shows at 9:30 and 11:30 a.m. Tickets: \$5. 9:30 a.m. Durgin Concert Hall. For information and reservations, call the STARTS hotline (978) 934-4452

Friday, Mar. 19

Performance, STARTS program, "Remembering the World of Anne Frank," performing arts for grades 4-8, shows at 9:30 and 11:30 a.m. Tickets: \$5. 9:30 a.m. Durgin Concert Hall. For information and reservations, call the STARTS hotline (978) 934-4452

Calendar of Events

Wednesday, Dec. 10

Performance, STARTS program, "Laura Ingalls Wilder: Growing Up on the Prairie," performing arts for grades 2-5, shows at 9:30 and 11:30 a.m., Durgin Concert Hall, tickets: \$5. For information and reservations, call the STARTS hotline (978) 934-4452.

Performance, Ensemble Series, concert band, Prof. Daniel Lutz, director, 7:30 p.m., Durgin Concert Hall. For information, call (978) 934-3850.

Thursday, Dec. 11

Retirement Reception, Dr. Susan Goodwin, vice chancellor for Administration and Finance, 2 to 4 p.m., Alumni/Faculty Lounge.

Performance, Student Recital, Darcie Pickering, bassist, 7:30 p.m., Fisher Recital Hall. For information, call (978) 934-3850.

Performance, Ensemble Series, contemporary electronic music ensemble, Dr. John Shirley, director, 7:30 p.m., Durgin Concert Hall. For information, call (978) 934-3850.

Friday, Dec. 12

Luncheon, Fourth Annual Excellence in Research Day, featuring keynote speaker Belinda Seto, deputy director for the Office of Extramural Research, National Institute of Health, noon, Wannalancit Conference Center. For more information, contact (978) 934-4735 or lila_lorrey@uml.edu.

Performance, Ensemble Series, combined choral groups, Dr. Christopher McGahan, director, 7:30 p.m., Durgin Concert Hall. For information, call (978) 934-3850.

Performance, "An Evening with Eve Ensler," author of the "Vagina Monologues," \$25 admission, \$15 w/ student ID, 7:30 p.m., Evos Arts Institute, 98 Middle St., Lowell. For information or reservation, call (978) 452-7721 or visit www.rcsgrl.org/Eve/eve.html.

Saturday, Dec. 13

Exhibit Reception, BFA Candidates Fall 2003, 2 to 5 p.m., University Gallery, McGauvran Student Center, exhibit runs through Jan. 10. For more information, call (978) 934-3491.

Parker Lecture Series, "Forensic Psychology: Fact or Fiction," by "G.H. Ephron" (Hallie Ephron and Donald Davidoff, Ph.D.), the mystery writing team discusses forensic in their mystery fiction, 2 p.m., Pollard Memorial Library, Lowell. For information or a schedule, contact (978) 934-3107 or Paul_Marion@uml.edu.

Sunday, Dec. 14

Bobblehead Sale, 200 Kerouac Bobbleheads up for sale, \$35 each, limit of two per customer, pay by check and receive credit for a tax-deductible contribution, all proceeds go to the UML Kerouac Programs, 1 to 3 p.m., Barnes & Noble, downtown Lowell. For more information, call (978) 934-4195.

Parker Lecture Series, "Mediterranean Discovery - Tunisia Holiday," by Ken Lawrence, film explores the sights, sounds, color, countryside and people of this North African country, 2 p.m., Lowell High School Auditorium. For information or a schedule, contact (978) 934-3107 or Paul_Marion@uml.edu.

Hockey, vs. Niagara University, 4 p.m. Tsongas Arena. For more information, call (978) 934-HAWK

Tuesday, Dec. 16

Performance, STARTS program, "The Tailor of Gloucester," performing arts for grades K-3, 9:30 and 11:30 a.m., Durgin Concert Hall, tickets: \$5. For information and reservations, call the STARTS hotline (978) 934-4452.

Monday, Dec. 22

Winter Class Deadline, last day to register for Winter Intersession, classes run Jan. 5 - 21. For more information, visit <http://continuinged.uml.edu/winter>.

Saturday, Jan. 3

Hockey, vs. UMass Amherst, 2 p.m., Tsongas Arena. For more information, call (978) 934-HAWK.

Sunday, Jan. 4

Parker Lecture Series, "Italy's Fabled Islands," by Stan Walsh, veteran cinematographer explores Italy's most exotic islands, 2 p.m., Lowell High School Auditorium. For information or a schedule, contact (978) 934-3107 or Paul_Marion@uml.edu.

Monday, Jan. 5

Winter Classes Begin, Continuing Education classes begin for Winter Intersession. For more information, visit <http://continuinged.uml.edu/winter>.

Tuesday, Jan. 6

Faculty Workshop, "On-Line Research: Which Database Should I Use?" introduces the most significant indices and databases specific to particular disciplines, 9:30 a.m. to 12:30 p.m., O'Leary Electronic Reference Center. For more information, contact (978) 934-2928 or Mary_Beaudry@uml.edu.

Wednesday, Jan. 7

Faculty Workshop, "On-Line Advising Tools that Strengthen the Connection Between Academic Studies and Career Goals," explore the various on-line resources that can help guide students, 9:30 a.m. to 12:30 p.m. For more information, contact (978) 934-2928 or Mary_Beaudry@uml.edu.

Thursday, Jan. 8

Faculty Workshop, "Beyond Lectures, Exams and Essays: Exploring Project-Based and Service Learning," focuses on methods to enhance the

academic and professional development of students, 9:30 a.m. to 12:30 p.m., Southwick 202. For more information, contact (978) 934-2928 or Mary_Beaudry@uml.edu.

Women's Basketball, vs. College of St. Rose, 5:30 p.m., Costello Gym. For more information, call (978) 934-HAWK.

Men's Basketball, vs. College of St. Rose, 7:30 p.m., Costello Gym. For more information, call (978) 934-HAWK.

Saturday, Jan. 10

Women's Basketball, vs. Pace University, 2 p.m., Costello Gym. For more information, call (978) 934-HAWK. **Men's Basketball, vs. Pace University,** 4 p.m., Costello Gym. For more information, call (978) 934-HAWK.

Wednesday, Jan. 14

Spring Open House, Continuing Education Open House for spring semester classes, 5 - 7:30 p.m., Southwick 223. For more information, visit <http://continuinged.uml.edu>. Saturday, Jan. 17

Hockey, vs. Merrimack College, 7 p.m., Tsongas Arena. For more information, call (978) 934-HAWK.

Parker Lecture Series, "Blended Families," with David Chedekel and Karen O'Connell, family psychologists discuss the joys and challenges of blended families, 2 p.m., Pollard

Center. For information or a schedule, contact (978) 934-3107 or Paul_Marion@uml.edu.

Monday, Jan. 19

Women's Basketball, vs. Bryant College, 5:30 p.m., Costello Gym. For more information, call (978) 934-HAWK.

Men's Basketball, vs. Bryant College, 7:30 p.m., Costello Gym. For more information, call (978) 934-HAWK.

Saturday, Jan. 24

Hockey, vs. Brown University, 7 p.m., Tsongas Arena. For more information, call (978) 934-HAWK.

Sunday, Jan. 25

Parker Lecture Series, "Lowellian Religious Illumination: The Stained Glass Window," by Dr. Liana Cheney, UML prof. of cultural studies, the innovation of architectural design and religious symbolism is revealed in the stained glass windows of Lowell churches, 2 p.m., Lowell National Park Visitor's Center. For information or a schedule, contact (978) 934-3107 or Paul_Marion@uml.edu.

Friday, Jan. 30

Hockey, vs. Boston University, 7 p.m., Tsongas Arena. For more information, call (978) 934-HAWK.

Continued on Page 9

Did you know...

actress Olympia Dukakis was born in Lowell?

For Extra Credit...

Which role earned her an Academy Award?

Dukakis won her Oscar, playing a doting Italian mother opposite Cher in the 1987 romantic comedy, Moonstruck.



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The Deadline for the Next Issue of The Shuttle is Jan 16.